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JEB FORT STORY, VA
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LETTER WITH ENCLOSED SITE CHARACTERIZATION REPORT AND CHECKLIST FOR THE
WASH RACK AT LIGHTER AMPHIBIOUS RESUPPLY CARGO (LARC) 60 AREA FORT
STORY VA
7/12/1994
U.S. ARMY TRANSPORTATION CENTER FORT EUSTIS VA



REPLY TO
ATTENTION OF

Directorate of Public Works

DEPARTMENT OF THE ARMY

U.S. ARMY TRANSPORTATION CENTER
FORT EUSTIS, VIRGINIA 23604-5000

July 12, 1994

File: 62.8
6D.11
0050



SUBJECT: DEQ Tracking Number: PC 94-2275, Wash Rack at LARC 60 Area

LeAnn Moran
Virginia Department of Environmental Quality
Water Regional Office
287 Pembroke Office Park
Pembroke 2, Suite 310
Virginia Beach, Virginia 23462

Dear Ms. Moran:

Enclosed is the Site Characterization Report and Checklist for the LARC 60 Wash Rack at Fort Story. If you have any questions, please contact Mr. Dan Musel at (804) 878-4123.

Sincerely,

Stephen A. McCall

Stephen A. McCall
Chief, Environmental and
Natural Resources Division

Enclosure

Copy Furnished:
DEQ, Waste Division, Mr. Scott McMillian

ERC

ENVIRONMENTAL
RESTORATION
COMPANY

SITE CHARACTERIZATION REPORT

on

80th Division LARC 60 Area
Fort Story, Virginia

prepared for

Directorate of Public Works
Environmental and Natural Resources Division
Fort Eustis, Virginia

prepared by

ENVIRONMENTAL RESTORATION COMPANY
9700 Ashley Dawn Court
Fredericksburg, Virginia 22408
(703) 898-5616

date

June 28, 1994

ERC #4418

SITE CHARACTERIZATION REPORT CHECKLIST

Site: Fort Story, 80th Div. LARC 60 PC# 94-2275 Region TRO

The following checklist must be filled out by the Responsible Party (RP) and/or the RP's Consultant and included in the Site Characterization Report. Indicate on the checklist the page and section number where each item is addressed in the attached report. Also indicate on the checklist the section and page number where justification is given for items omitted from the attached report. The contents of the report should reflect and be commensurate with the nature of the release, degree of contamination and complexity of the site investigation.

A copy of the Initial Abatement Measures Report must be attached to or included in the Site Characterization Report.

Items marked with an * are required as part of the CAP Permit Application.

1. SITE ASSESSMENT

Page /Section		
<u>1</u>	<u>/ 1.2</u>	Nature and quantity of release
<u>1</u>	<u>/ 1.3</u>	*Physical and chemical properties of released product
<u>1</u>	<u>/ 1.4</u>	Free Product Removal Report
<u>4</u>	<u>/ 1.5</u>	Tank information (capacity, location, contents)
<u>4</u>	<u>/ 1.6</u>	Geologic/hydrogeologic site information
<u>4</u>	<u>/ 1.6.1</u>	Site geology
<u>4</u>	<u>/ 1.6.2</u>	Subsurface conditions (fractures, solution cavities, lenses, depth to ground water)
<u>5</u>	<u>/ 1.6.3</u>	Pumping/injection wells
<u>5</u>	<u>/ 1.6.4</u>	Drillers/geologic logs and construction details for all wells and boreholes
<u>5</u>	<u>/ 1.6.5</u>	Aquifer characteristics
<u>5</u>	<u>/ 1.6.5.1</u>	Name
<u>5</u>	<u>/ 1.6.5.2</u>	Thickness
<u>5</u>	<u>/ 1.6.5.3</u>	Conductivity
<u>5</u>	<u>/ 1.6.5.4</u>	Transmissivity
<u>5</u>	<u>/ 1.6.5.5</u>	Hydraulic gradient
<u>5</u>	<u>/ 1.6.5.6</u>	Flow velocity/direction
<u>5</u>	<u>/ 1.6.5.7</u>	Hydrogeologic cross section
<u>6</u>	<u>/ 1.7</u>	Information as to water resources within 1000 ft of site (wells, springs, surface water)
<u>8</u>	<u>/ 1.8</u>	Information as to adjacent property owners and potentially affected ground and surface water users (names, addresses, telephone numbers)
<u>8</u>	<u>/ 1.9</u>	Information on historical releases at the site as well as historical releases from USTs located on adjacent property
<u>8</u>	<u>/ 1.10</u>	Construction information on potentially affected wells
<u>9</u>	<u>/ 1.11</u>	Current and projected groundwater/land use
<u>9</u>	<u>/ 1.12</u>	Description of vertical and lateral extent of contamination
<u>9</u>	<u>/ 1.12.1</u>	Free product phase
<u>9</u>	<u>/ 1.12.2</u>	Dissolved phase
<u>11</u>	<u>/ 1.12.3</u>	Residual phase
<u>12</u>	<u>/ 1.12.4</u>	Vapor phase

SCR Checklist

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12 / 1.12.5 Plume migration direction and rate
12 / 1.12.6 Sampling/monitoring results

NOTE: All lab sheets and tables submitted in SCR must have sample media, analytical method used, detection limit method, unit of measure, sample depths, and sample locations. Sampling results from BTEX analysis must be reported individually and totaled.

Site maps/sketches (combine when appropriate and to scale when possible)

2 1 / 1.1 *Locus map on 7 1/2 min. quad. or county highway map
3 2 / 1.1 *Base map with property lines and physical features (buildings, roads, etc.)
2 / 1.1 *Location of source(s) of contamination at site
2 / 1.1 Sample locations (water, vapor, and/or soil)
 NA / Excavation pits
 2 / Ex.Sm. Surficial soils
 P.6 NA / 1.7 Surface waters
 P.4 NA / 1.6.2 Basements/conduits (and/or soil vapor surveys)
 3 2 / Ex.Sm. Monitoring wells
 P.6 NA / 1.10 Domestic wells
 P.6 NA / 1.10 Public supply wells
 P.6 NA / 1.7 Springs
2,3 / Ex.Sm. Boring locations
2,3 / Ex.Sm. Observation well locations
3 / 1.6.5 Ground water flow direction map
 P.4 NA / 1.6.2 Subsurface conduits (telephone, water, sewer, power, dispenser piping)
 P.6, P.8 NA / 1.7 *Potentially affected wells/streams/springs
 P.4 NA / 1.6.1 *Flood plain designation
5 / 1.12.5 Isoconcentration or plume delineation map for each affected aquifer and/or soil zone for all phases present (cross-sectional and map view)
 NA / 1.12.1 Free product
 5 / 1.12.2 Dissolved
 2 / 1.12.3 Residual
 2 / 1.12.4 Vapor

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2. RISK ASSESSMENT

- | | | | |
|-----------|----------|------------|--|
| <u>12</u> | <u>/</u> | <u>2.1</u> | Description of demographics (population) |
| <u>12</u> | <u>/</u> | <u>2.2</u> | Impacted and potentially impacted receptors (human/wildlife/forestry, etc.) |
| <u>13</u> | <u>/</u> | <u>2.3</u> | Exposure pathways for receptors |
| | | <u>13</u> | <u>/2.3.1</u> Ingestion |
| | | <u>13</u> | <u>/2.3.2</u> Dermal contact |
| | | <u>13</u> | <u>/2.3.3</u> Inhalation |
| | | <u>13</u> | <u>/2.3.4</u> Other |
| <u>13</u> | <u>/</u> | <u>2.4</u> | Exposure levels for receptors |
| | | <u>14</u> | <u>/ 2.4.1</u> Exposure level determination |
| | | <u>14</u> | <u>/2.4.1.1</u> Tap water sample |
| | | <u>14</u> | <u>/2.4.1.2</u> Direct well sample |
| | | <u>14</u> | <u>/2.4.1.3</u> Surface water sample |
| | | <u>14</u> | <u>/2.4.1.4</u> OVA and location of measurement |
| | | <u>14</u> | <u>/2.4.1.5</u> Extrapolation |
| | | <u>14</u> | <u>/2.4.1.6</u> Other |
| <u>14</u> | <u>/</u> | <u>2.5</u> | Evaluation of existing/potential risk to receptors (based on contaminant levels, exposure levels, frequency of exposure) |
| <u>15</u> | <u>/</u> | <u>2.6</u> | Evaluation of existing/potential risk to environment (based on contaminant levels, fate & transport, etc.) |
| <u>15</u> | <u>/</u> | <u>2.7</u> | Evaluation/provision of alternate water supply |

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3. REMEDIATION ASSESSMENT

- 15 / 3.1 Remediation feasibility
- 16 / 3.2 Projected remediation endpoints based on site, risk, and remediation assessments
- 16 / 3.2.1 Free product
- 16 / 3.2.2 Dissolved
- 16 / 3.2.3 Residual
- 16 / 3.2.4 Vapor
- 16 / 3.3 Description & evaluation of applicable technologies
- 17 / 3.3.1 Design for each applicable technology
- 18 / 3.3.2 Timeframe for implementation and duration for each applicable technology to achieve projected remediation endpoints
- 19 / 3.3.3 Projected cost for each applicable technology to achieve projected remediation endpoints
- 19 / 3.3.4 Achievable endpoints for each applicable technology
- 19 / 3.3.4.1 Free product
- 19 / 3.3.4.2 Dissolved
- 19 / 3.3.4.3 Residual
- 19 / 3.3.4.4 Vapor
- 20 / 3.3.5 Estimated timeframe for achieving endpoints for each applicable technology
- 20 / 3.3.5 Free product
- 20 / 3.3.5 Dissolved
- 20 / 3.3.5 Residual
- 20 / 3.3.5 Vapor
- 16 / 3.3 Immediate/future beneficial results for each applicable technology
- 20 / 3.4 Recommendation of most appropriate technologies with costs
- *** / Site Characterization Report submitted within 45 days of release confirmation or*extension granted**

*** DEQ letter dated April 13, 1994

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VIEWED BY:

DATE:
